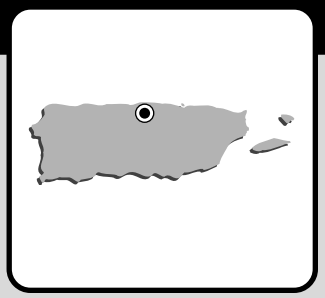
SABANA SECA NAVAL SECURITY GROUP ACTIVITY
SABANA SECA, PUERTO RICO



Engineering Field Division/Activity: LANTDIV

Major Claimant: COMNAVSECGRU

Size: 2,252 Acres

Funding to Date: $2,932,000

Estimated Funding to Complete: $1,290,000

Base Mission: Operates a high frequency direction finding facility and provides communication and related services, and manpower assistance to components of Department of the Navy and other Department of Defense elements within the area

Contaminants: Heavy metals (arsenic, copper, lead, mercury, zinc), PCBs, pesticides/herbicides, phenols

Number of Sites:		Relative Risk Ranking of Sites:			
CERCLA:	7	High:	2	Not Evaluated:	0
RCRA Corrective Action:	0	Medium:	2	Response Complete:	2
RCRA UST:	1	Low:	2	Total Sites:	8
Total Sites:	8				

NPL

EXECUTIVE SUMMARY

Sabana Seca Naval Security Group Activity (NSGA) is located on the northcentral coast of Puerto Rico, approximately 11 miles west of the capital city of San Juan, adjacent to the village of Sabana Seca. The station encompasses over 2,200 acres of land and is divided into the North and South Tracts.

The South Tract consists of 921 acres and is known as the Support Site. The site contains the office of the Commanding Officer, facility maintenance, administration, housing, supply, health care facilities, recreation and retail outlets.

The 1,333 acre North Tract, commonly referred to as the Operations Site, contains the Circularly Disposed Antenna Array (CDAA); the CDAA operations building (Building 85), located in the center of the array; and the Naval Radio Receiver Facility, located adjacent to Building 85.

Both the North and South Tracts are surrounded by buffered zones which provide electromagnetic interference free zones for the communications receiving equipment. A total of four outleases covering in excess of 1,500 acres are presently in effect for agricultural uses at both tracts.

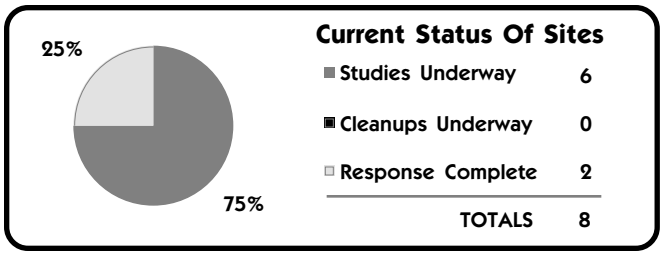
The mission of NSGA Sabana Seca is to operate a High Frequency Direction Finding Facility and provide communications and related support, including communications relay, communications security and communications manpower assistance to components of the US Navy and other Department of Defense (DOD) elements within the area as assigned by Chief of Naval Operations (CNO).

Typical operations that contributed to contaminated sites on the facility include paint shops, boiler plants, power plants, carpenter shop, pest control shop, electrical shop, air conditioning and refrigeration shop, plumbing shop, vehicle maintenance shop, fire fighting training and water treatment plants. Current operations include pollution prevention technologies to prevent further contamination. The primary sites of concern are a former pest control shop where pesticides and herbicides were disposed of and a leachate ponding area which receives leachate from an adjacent municipal landfill. This landfill accepts anything from residential, pharmaceutical, chemical, industrial and infectious waste. The NSGA is under an Federal Facility Agreement (FFA) with the EPA which was signed in March 1992.

A Technical Review Committee (TRC) was formed in FY90 to solicit community input in the cleanup decision-making process. The installation focuses its public involvement efforts on the specific needs of the local community. For example, the Community Relations Plan (CRP), prepared in FY91, was provided in both English and Spanish versions to accommodate a bilingual community. The Navy plans to convert the TRC into a Restoration Advisory Board (RAB) in FY96, which includes identifying additional members and soliciting their participation on the RAB. An Information Repository and Administrative Record were established in the community to ensure public access to documents related to the cleanup program.

Currently, six CERCLA sites are in a study phase. Of these six sites, Sites 1-4, four are in a Site Inspection (SI) and two, Sites 6 and 7, are in a Remedial Investigation/Feasibility Study (RI/FS).

Sites 5 and UST 1 are Response Complete (RC). The cleanup at one CERCLA site, Site 5, has been completed as a result of a removal action in 1984 to dispose of debris at a nearby municipal landfill. The remaining inert material was buried on-site. The one RCRA Under Ground Storage Tank (UST) site completed a Corrective Action Plan (CAP) early and resulted in the site being RC.



SABANA SECA NSGA
RELEVANT ISSUES

ENVIRONMENTAL RISK

HYDROGEOLOGY - The North tract of NSGA is primarily a swampy area covered by stagnant water. Sandy muck and claey sands, generally less than ten meters thick, predominate in the area. Alluvial deposits consisting of sand, clay and sandy clay with variable thickness up to 25 meters thick are located near the CDAA and the village of Ingenio. The alluvium and muck are underlain by limestone. Some of the soils on Sabana Seca are clays. They are mostly level, but some are well drained. The aquifer supplying the south tract is only about 40 feet below ground level. Contamination via leachates from the nearby municipal landfill is a potential threat. The South Tract is supplied by two wells 130 and 140 feet below ground level. The water from these wells is disinfected by direct chlorine injection.

NATURAL RESOURCES - The North Tract is bordered to the north by the Cocal River, agricultural land and further north the Atlantic Ocean. The rural community of Ingenio is located directly southwest of this tract. Agricultural lands abut the eastern perimeter and Route 867 forms the southern boundary of the tract, adjoining it to the South Tract.

The South Tract is bordered to the north by Route 867 and agricultural land. The village of Sabana Seca is located adjacent to the eastern perimeter and the De Diego Expressway traverses the southern portion of the tract. Land to the west of the tract is used primarily for agricultural purposes, cattle grazing and a municipal landfill. The US Department of Health and Human Services owns the land directly adjacent to the western perimeter of the base and leases it for a Primate Research Center (PRC). Department of Health and Human Services leases a small portion of land from the Navy to support the PRC.

Of the 21 federally listed endangered and threatened species of Puerto Rico only one, the Puerto Rican boa has been captured in areas similar to those found in the haystack hills in the South Tract; however, there have been no reported sightings of any wildlife species on the endangered or threatened species list at either the North or South Tracts or in the general vicinity of the activity.

RISK - A Baseline Risk Assessment, both ecological and human health, has been completed for Sites 6 and 7 and is currently ongoing for Sites 1 and 3 following the EPA guidance. For the DOD Relative Risk Ranking System, six of the eight sites have been ranked. This resulted in two sites being ranked as high. These high-ranked sites were so ranked primarily due to known soil and groundwater contamination and identified migration pathways.

The Agency for Toxic Substance and Disease Register (ATSDR) performed a public health assessment for the installation.

REGULATORY ISSUES

NATIONAL PRIORITIES LIST - The installation was placed on the NPL in October 1989 with a Hazard Ranking System score of 34.28. This score was a result of one site (Site 6) with pesticide contamination being adjacent to the base picnic/playground and housing areas.

LEGAL AGREEMENTS - A Federal Facilities Agreement (FFA), was signed in March 1992 between the Navy, EPA and Puerto Rican Environmental Quality Board (PREQB). The Site Scope of Work (SSOW), which is updated annually, contains the investigation and cleanup schedules for the sites and is included by reference as part of the FFA.

COMMUNITY INVOLVEMENT

RESTORATION ADVISORY BOARD - A Technical Review Committee (TRC) was formed in FY90 to solicit community input in the cleanup decision-making process. The installation focuses its public involvement efforts on the specific needs of the local community. A Restoration Advisory Board (RAB) has not yet been established. The Navy will continue to solicit community interest in forming a RAB.

COMMUNITY RELATIONS PLAN - A Community Relations Plan (CRP) Plan was prepared in FY91. It was provided in English as well as Spanish.

INFORMATION REPOSITORY - An Information Repository and Administrative Record were established in the community to ensure public access to documents related to the cleanup program.

SABANA SECA NSGA
HISTORICAL PROGRESS

FY84

Sites 1-7 - Preliminary Assessments (PAs) were completed.
Site 5 - An Interim Remedial Action (IRA) was completed. The majority of debris was removed and disposed of at the nearby municipal landfill. The remaining inert material was buried on-site.

FY88

Site 6 - An IRA was completed which included demolition and disposal of the Pesticide Shop at the nearby municipal landfill. Removal action included placing a six inch cover of clean soil over the site and surrounding the site with a fence to prevent exposure to spilled pesticides. Hazardous waste was removed and disposed of accordingly.

FY89

Sites 6 and 7 - SIs were completed.

FY92

UST 1 - An Initial Site Characterization (ISC) was completed.
FY93
Site 6 - An RI which focused on pesticide and herbicide contamination was completed.
Site 7 - An FS was conducted to determine the IRA needed to protect installation personnel from exposure to leachate from the municipal landfill.
UST 1 - An Investigation (INV) was completed.

FY94

Site 6 - A draft Proposed Remedial Action Plan (PRAP) was completed in September 1994 which called for excavation and disposal of contaminated soil to an off-site location. However, this proposed action was too aggressive, considering the very small quantity of contaminated soil present. Therefore, the draft PRAP is currently being revised and will present capping with asphalt as the Navy's preferred remedy. Prior to an RA, the cabinets that housed chemical additive PCB-containing transformers will be removed.
Site 7 - A Treatability Study (TS) was initiated for the Engineered Wetland alternative which called for the field construction of a pilot-scale engineered wetland system to be studied for a minimum of six months. The Engineered Wetland intended to biologically treat leachate-contaminated runoff that flows from the municipal landfill adjacent to Navy property. The TS was never completed due to significant changes in the site conditions. A No Further Response Action Planned (NFRAP) decision document will be prepared in FY96.
UST 1 - A CAP was completed.

PROGRESS DURING FISCAL YEAR 1995

FY95

Sites 1 and 3 - Initiated expanded SI efforts.
Sites 2 and 4 - SIs underway expected to be completed in FY96. Initiated preparation of No Further Response Action Planned (NFRAP) decision documents.
Site 6 - An RI/FS underway is expected to be completed in FY96. Initiated preparation of PRAP and Records of Decision (ROD).

PLANS FOR FISCAL YEARS 1996 AND 1997

FY96

Complete conversion of TRC into a RAB.
Complete Photographic Album and Information Brochures to explain the cleanup program underway. Distribute completed brochures to RAB members and present during public meetings.
Sites 1 and 3 - An RI/FS is expected to start and be completed in FY99.
Site 6 - Complete the FS, PRAP and ROD. Begin Remedial Design and proceed to RA.
Site 7 - An IRA is scheduled to start and be completed in FY06.

FY97

Sites 1 and 3 - SIs are expected to be complete.
Site 3 - An RI/FS is scheduled to start and be completed in FY99.
Site 6 - An RA and a IRA are expected to be completed.

SABANA SECA NSGA
PROGRESS AND PLANS

CERCLA	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
PA	7							
SI	2		2	2				
RI/FS			1			2		1
RD			1					
RA				1				
IRA	2(2)			1(1)				1(1)
RC	1		2	1		2		1
Cumulative Response Complete	14%		43%	57%		86%		100%
UST	**FY94 and before**	**FY95**	**FY96**	**FY97**	**FY98**	**FY99**	**FY00**	**FY01 and after**
ISC	1							
INV	1							
CAP	1							
DES								
IMP								
IRA								
RC	1							
Cumulative Response Complete	100%							